

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/US04/043690

International filing date: 22 December 2004 (22.12.2004)

Document type: Certified copy of priority document

Document details: Country/Office: US
Number: 60/531,732
Filing date: 22 December 2003 (22.12.2003)

Date of receipt at the International Bureau: 31 January 2005 (31.01.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

1275910

UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

January 19, 2005

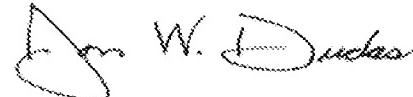
THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM
THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK
OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A
FILING DATE.

APPLICATION NUMBER: 60/531,732

FILING DATE: *December 22, 2003*

RELATED PCT APPLICATION NUMBER: PCT/US04/43690

Certified by



Under Secretary of Commerce
for Intellectual Property
and Director of the United States
Patent and Trademark Office



17157 U.S. PTO
122203

17157 U.S. PTO

Please type a plus sign (+) inside this box →

PTO/SB/16 (02-01)

Approved for use through 10/31/2002. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

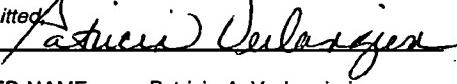
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

Express Mail Label No. EV395988815US

INVENTOR(S)					
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)			
Mark Alan Matthew Robert	Schultz Lamb	Carmel, Indiana Westfield, Indiana			
<input checked="" type="checkbox"/> Additional inventors are being named on the 1 separately numbered sheets attached hereto					
TITLE OF THE INVENTION (280 characters max)					
MOVEABLE LIGHT MASKING FOR SEGMENTED DISPLAYS					
CORRESPONDENCE ADDRESS					
Direct all correspondence to:					
<input type="checkbox"/> Customer Number	<input type="text"/> →				
OR	Type Customer Number here				
<input checked="" type="checkbox"/> Firm or Individual Name	JOSEPH S. TRIPOLI, THOMSON LICENSING INC.				
Address	PATENT OPERATIONS.				
Address	P. O. BOX 5312				
City	PRINCETON	State	NJ	ZIP	08543-5312
Country	USA	Telephone	609-734-6834	Fax	609-734-6888
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages	5	<input type="checkbox"/> CD(s), Number	<input type="text"/>		
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets	Inclusive	<input type="checkbox"/> Other (specify)	<input type="text"/>		
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	FILING FEE AMOUNT (\$)				
<input type="checkbox"/> A check or money order is enclosed to cover the filing fees	<input type="text"/> 160				
<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: <input type="text" value="07-0832"/>	<input type="text"/>				
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.					
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input checked="" type="checkbox"/> No.					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

Respectfully submitted	Date	12/22/03
SIGNATURE		
TYPED or PRINTED NAME	REGISTRATION NO. (if appropriate)	
TELEPHONE 609 734-6867	42,201	
	Docket Number:	
	PU030327	

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

60531732 U.S. PTO

122203

PROVISIONAL APPLICATION COVER SHEET
Additional Page

PTO/SB/16 (02-01)

Approved for use through 10/31/2002. OMB 0651-0032
and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
collection of information unless it displays a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Docket Number	PU030327	Type a plus sign (+) inside this box →	+
INVENTOR(S)/APPLICANT(S)			
Given Name (first and middle [if any])	Family or Surname	Residence (City and either State or Foreign Country)	
Charles Bryan	Hunt	Westfield, Indiana	

Number 1 of 1

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- ✓ • BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

1. Descriptive Invention Title: Moveable Light Masking for Segmented Displays**2. Inventor(s) Information** (The first named inventor should be the primary contact for Patent Operations)

First Name	Mark	Middle Name	Alan	Last Name	Schultz
First Name	Matthew	Middle Name	Robert	Last Name	Lamb
First Name	Charles	Middle Name	Bryan	Last Name	Hunt

Brief summary of the invention.

This is a mechanical device to block undesired light from a projector in a multi-projector display while still allowing individual projectors to move freely during alignment.

Background

This device blocks undesired light from surfacing above the lens while still allowing the lens and projector to be moved around for alignment.

Loose cloth masking and boards were used in the past but both had problems. Most cloth is flammable which is a concern next to +100W lamps and moveable masking usually means that the cloth has slack that sags toward the lamps creating the fire hazard. When stiff material is used, the alignment process requires that holes be cut and repaired based on the latest alignment which is labor intensive and sometimes torques the lenses. This invention fixes both of these problems.

Description of the Invention

The main idea is to use a solid platform similar to a table around the exit pupil of the projector lenses. A hole is cut large enough around each lens to accommodate the alignment of each projector in the segmented display. A stiff masking that resembles an inverted top-hat with the top of the hat removed is then placed over each lens to mask the undesired light. This top-hat has a tube that is slightly larger in diameter than the outside dimensions of the lens which fits over the lens. The larger rectangle of material, analogous to the brim of the hat, must be larger than the opening in the table for each projector and has the tube inserted at 90 degrees to complete the adjustable masking. This masking design is a cylinder that is passed through a plane with the cylinder being the size of the lens.

This technique allows a very adjustable platform, eliminates the fire hazards that cloth presents, provides a very effective light masking, and provides a means to easily remove the masking during projector setup and to place the masking back in place within seconds.

The first few drawings show the general projector setup for the segmented display. The next page shows where the masking is applied in the frame. The last set of pictures show the components of the masking and the way they work together.

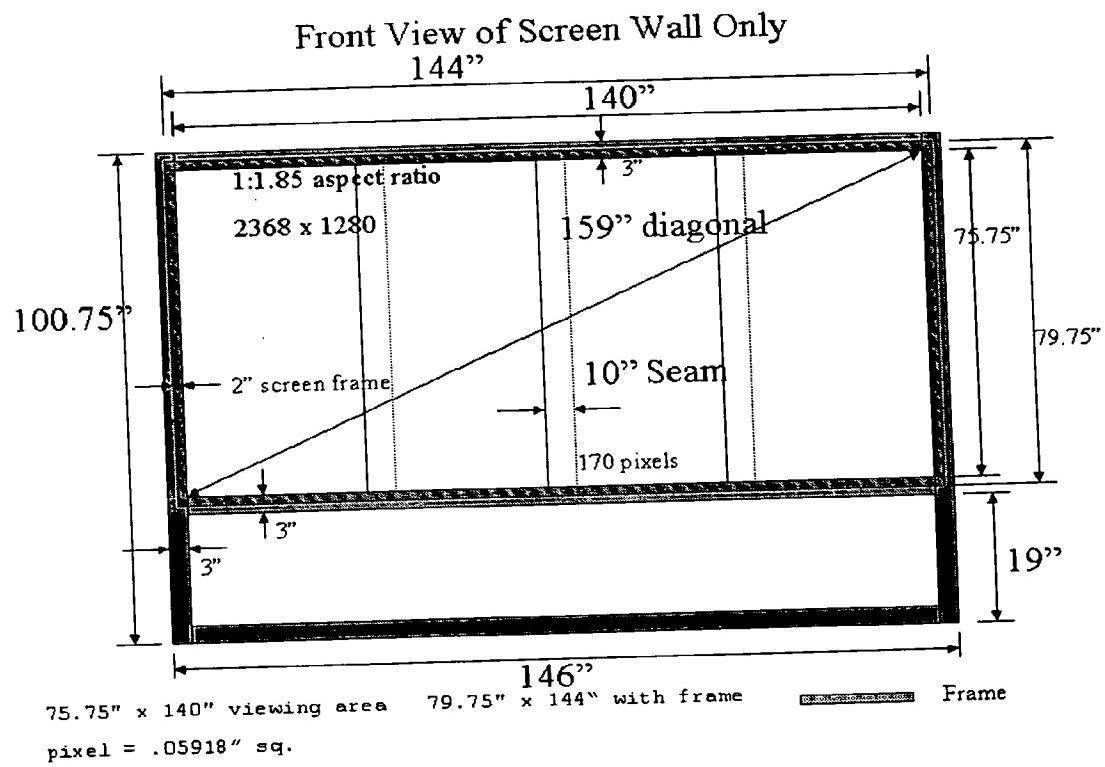


Figure 1

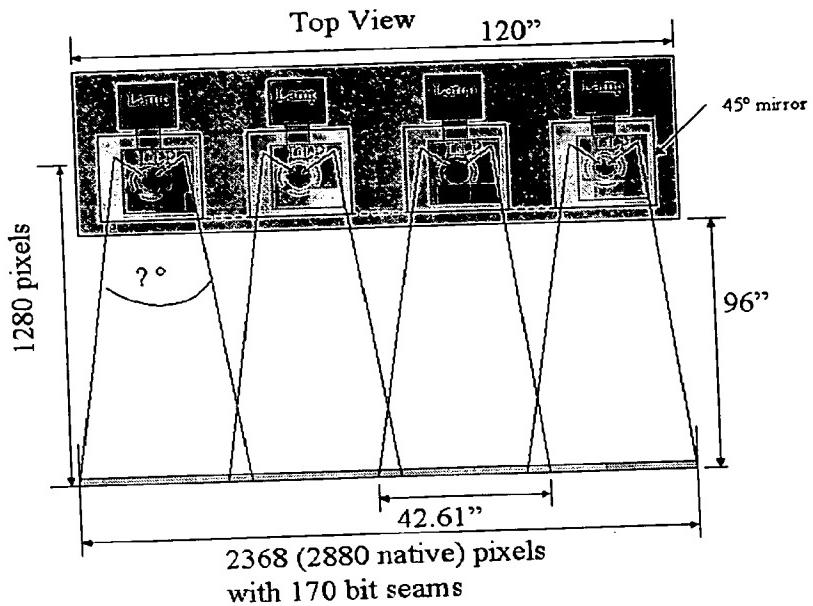


Figure 2

Side View

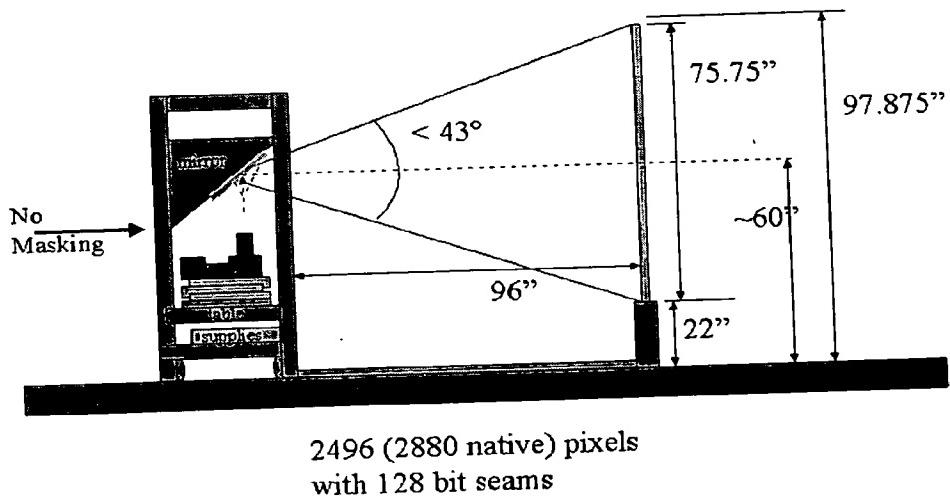


Figure 3

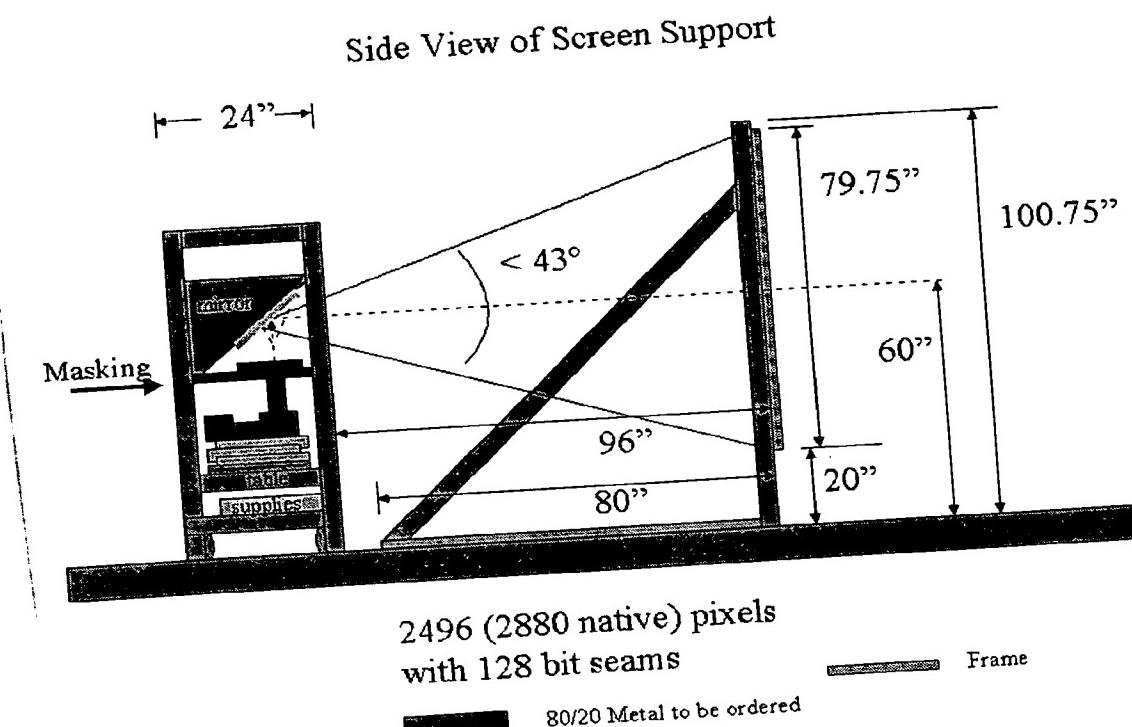


Figure 4

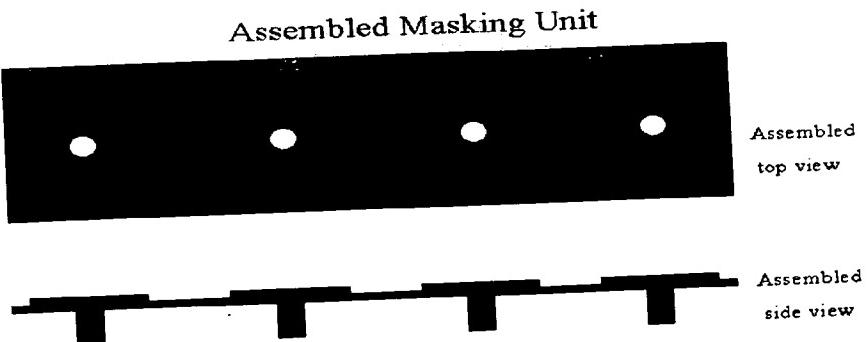


Figure 5

PU030327

Express Mail Label No. EV395988815US

Page 5 of 5

Masking Unit Components

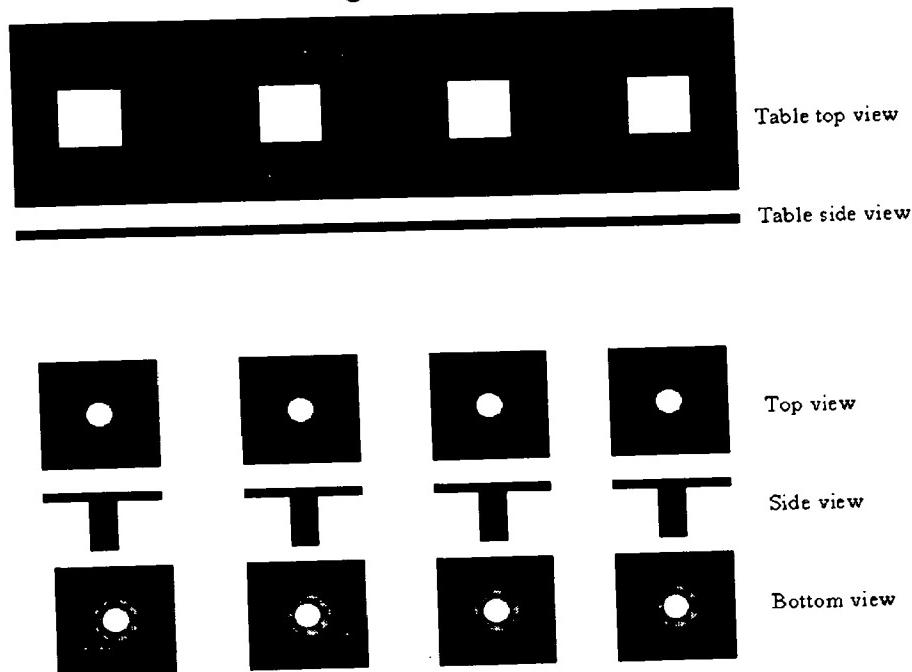


Figure 6